THE AGRICULTURAL SITUATION

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A Brief Summary of Economic Conditions

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ANOTHER HARVEST will soon be under way—of corn and cotton, tobacco and potatoes, and many other crops. Yields of many crops are good except in drought areas as in the Northeast, Nebraska, Kansas, and the Southwest. Nineteen thirty-nine cash farm income has been estimated at about 8 billion dollars, or a little less this year than last. Much of the reduction due to lower prices is being offset by increased Government conservation and price parity payments. * * * A new crop of winter wheat will soon be seeded—about the same acreage this year as last. Plenty of feed for livestock is in sight, a supply that is above average, but slightly smaller for each animal this year than last, because more livestock are on farms. Products expected to yield farmers more cash income this year than last include fruits, vegetables, meat animals, and wool. * * * Secretary Wallace urges farmers to proceed with 1940 production plans "as if the outbreak in Europe had not occurred."

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Commodity Reviews

DEMAND: Uptrend

UP to mid-August improvement had continued in domestic business activity and consumer purchasing power which affect the demand for farm products. Some additional improvement is expected by fall. Marked improvement has occurred also in economic conditions in Great Britain and some other foreign countries which are important markets for United States farm products.

Domestic industrial production was above the 1923–25 average of 100 in July and early August for the first time since last January. Foreign industrial production has attained new all-time peaks each month since last February. The gains in domestic production have resulted in a moderate increase in nonagricultural employment and purchasing power. Unemployment in the principal European countries has practically disappeared.

Principal factor of strength in the domestic industrial situation has been the sharp rise in steel production the last 3 months. The increased demand for steel has been largely from a variety of miscellaneous sources.—P. H. B.

INCOME: Total Smaller

Farmers' cash income increased in July over June but was smaller than in July last year. Income was smaller in the first 7 months this year compared with last. Income is from marketings, commodities placed under Government loan, and Government conservation and parity payments.

Income from all crops except fruits, truck crops, and potatoes was seasonally larger in July over June this year. Largest increases were in income from wheat, tobacco, and peaches. Income from hogs, eggs, and milk was seasonally larger but returns from all other livestock products declined more than seasonally.

Totals for July, and for January–July, with comparisons, are:

Month and year	Income from marketings	Income from Government payments	Total
July:			
1939	$534,000,000	$36,000,000	$570,000,000
1938	609,000,000	34,000,000	643,000,000
1937	740,000,000	11,000,000	751,000,000
January–July:			
1939	3,501,000,000	450,000,000	3,951,000,000
1938	3,693,000,000	291,000,000	3,984,000,000
1937	4,238,000,000	341,000,000	4,579,000,000

BAE estimates total cash income for 1939 calendar year will be about 7,900 million dollars. In 1938 it was 8,020 million. In 1937—high year of recovery—it was 8,988 million. Low year was 1932—4,606 million.

Nineteen thirty-nine total includes 7,225 million from marketings and commodities under loan, and 675 million in Government payments. Totals show increases in income from marketings of fruits, vegetables, meat animals and wool this year, decreases from marketings of grains, cotton and cottonseed, tobacco, dairy products and chickens and eggs.

Cash Farm Income and Government Payments, 1937–39

Source of income	1937	1938	1939[1]
	Mil. dol.	*Mil. dol.*	*Mil. dol.*
Grains	1,008	842	820
Cotton and seed	884	667	525
Fruits	546	394	425
Vegetables	614	501	535
Tobacco	318	294	260
Total crops	3,845	3,153	2,925
Meat animals	2,330	2,180	2,200
Dairy	1,532	1,398	1,300
Chickens and eggs	753	699	685
Wool	117	71	80
Total livestock	4,776	4,385	4,300
Total cash income from farm marketings	8,621	7,538	7,225
Government payments	367	482	675
Cash income and Government payments	8,988	8,020	7,900

[1] First preliminary estimate for the year.

PRICES: Lower

The index of prices received by farmers declined 1 point in August, chiefly on lower prices of grains, meat animals, and tobacco. Prices of dairy products advanced a little, eggs were up, wool was priced higher. Cotton declined at the end of the month on the European political situation.

Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid	Buying power of farm products[1]
1938			
August	92	122	75
September	95	121	79
October	95	121	79
November	94	121	78
December	96	120	80
1939			
January	94	120	78
February	92	120	77
March	91	120	76
April	89	120	74
May	90	120	75
June	89	120	74
July	89	120	74
August	88	119	74

[1] Ratio of prices received to prices paid.

Index of prices received was 88 in mid-August, compared with 92 at the same time last year. Index of prices paid for commodities was 119 against 122 last year. The buying power of farm products was unchanged at 74.

PRODUCTION: Decrease

Acreage of principal crops for harvest is smaller this year than last—317 million acres compared with 329 million harvested in 1938, and 334 million the 1928–37 average—according to August reports.

Principal decrease from last year is in wheat. Acreages of corn and oats also are smaller. Some increases are indicated for barley, flaxseed, grain sorghums, hay, soybeans, and tobacco. Most crops also show yields per acre below the good yields of last year, principal exceptions being tobacco, several fruits, and possibly sweetpotatoes, wheat, and soybeans.

With a lower total acreage and generally lower yields per acre, the production of nearly all groups of crops except tobacco, fruits, and flaxseed will be sharply under production last year, and considerably below the exceptionally abundant harvests of 1937.

Prices of Farm Products

Estimates of average prices received by farmers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and States.

Product	5-year average, August 1909–July 1914	August average 1909–13	August 1938	July 1939	August 1939	Parity price, August 1939
Cotton, lb ... cents	12.4	12.3	8.12	8.77	8.70	15.5
Corn, bu ... do	64.2	70.9	48.5	47.8	45.7	80.2
Wheat, bu ... do	88.4	89.5	50.7	55.7	54.5	110.5
Hay, ton ... dollars	11.87	11.35	6.82	6.76	6.77	14.84
Potatoes, bu ... cents	69.7	84.0	[1] 52.7	76.4	69.1	85.3
Oats, bu ... do	39.9	40.9	20.3	26.5	25.4	49.9
Soybeans, bu ... dollars	(2)	(2)	.75	.75	.64	----------
Peanuts, lb ... cents	4.8	4.8	3.37	3.38	3.39	6.0
Beef cattle, cwt ... dollars	5.21	5.08	6.38	6.66	6.50	6.51
Hogs, cwt ... do	7.22	7.30	7.81	6.26	5.47	9.02
Chickens, lb ... cents	11.4	11.7	14.2	13.7	13.0	14.2
Eggs, doz ... do	21.5	18.1	21.0	16.5	17.5	[3] 23.2
Butterfat, lb ... do	26.3	24.1	24.1	22.0	22.4	[3] 30.6
Wool, lb ... do	18.3	18.8	[1] 19.8	21.8	22.0	22.9
Veal calves, cwt ... dollars	6.75	6.59	7.95	8.11	8.13	8.44
Lambs, cwt ... do	5.87	5.51	6.59	7.31	6.94	7.34
Horses, each ... do	136.60	137.30	82.60	80.20	78.00	170.80

[1] Revised. [2] Prices not available. [3] Adjusted for seasonality.

In the areas of drought this year—the Northeast, Nebraska, Kansas, and the Southwest—there will be some local shortages of food and feed crops, but in the country as a whole the production this year, plus large carry-over stocks, assures larger than average supplies of crops for food, feed, and fibers.—J. B. S.

WHEAT: New Seedings

BAE looks for a somewhat larger seeded acreage of wheat for 1940 than for 1939. If seedings—winter and spring—total 67 million acres, and average yields per seeded acre are obtained, 1940 production would be about 785 million bushels. This is 100 million bushels more than average domestic disappearance.

World acreage for harvest in 1940 is expected to remain close to present high record levels. BAE says that unless world acreage is adjusted downward or yields per acre are small, very large world supplies will probably continue during the 1940–41 season and any improvement in world prices would depend upon improvement in demand.

Domestic wheat prices have risen above this season's low levels. Prices are considerably above export parity and are expected to continue so as long as the Government loan and export subsidy programs continue and world prices remain low. No. 2 Hard Winter wheat at Kansas City was only 3 cents lower this July than last, whereas prices of Parcels at Liverpool were 44 cents lower.

World supply of wheat for the year beginning July 1 has been estimated at 5.3 billion bushels, largest on record—1.2 billion carry-over, plus 4.1 billion production; world supply last year was 5.2 billion bushels.

COTTON: Supply Reduced

World supply of cotton will be slightly smaller this season than the 50.5 million bales high record last year. The carry-over of American cotton is the largest on record, but the increase this year over last is expected to be about offset by a smaller 1939 United States crop. World carry-over and production of foreign cotton are smaller this year than last.

Cotton prices declined in late August on unsettled political conditions in Europe. During the week ended September 1 prices for Middling ⅞-inch cotton averaged 8.54 cents in spot markets, compared with 8.31 cents during the like period last year. Prices were about 1 cent lower than the season's highs reached on June 8 and July 10.

Domestic cotton mill consumption in July and the first half of August was 15 to 20 percent higher than a year earlier. During the 12 months ended July, domestic mills consumed nearly 7 million bales of cotton, about 19 percent more than in the preceding year. Mill activity and cotton consumption in foreign countries were reported well maintained during July and early August.

Exports of American cotton were small in August. Larger supplies of needed qualities of cotton will be available for export during coming months since ginnings from the 1939 crop materially exceed current requirements.

FLAXSEED: Larger Supply

The largest domestic supply of flaxseed in 9 years was indicated by August production indications plus the July 1 carry-over. Total indicated is 18.0 million bushels compared with 10.4 million last year. The increase in the United States is slightly more than offset by decreases in other countries. Prices have declined sharply since mid-June, reflecting the increase in the 1939 domestic crop.

FEED: Supply Ample

Total supply of feed grains—production and stocks—for 1939–40 feeding season has been indicated at about 110 million tons. This compares with

11 million tons last year, with 108 illion as the 1928–32 (pre-drought) verage.

A 7-percent increase in number of ɜed-grain-consuming livestock on ırms has been indicated next January over last. The feed-grain supply er livestock unit for 1939–40 is xpected to be about 0.81 ton—bout 8 percent less than the supply or 1938–39, but about 4 percent ıore than the 1928–32 average.

Feed supplies will be ample for the ntire country, but shortages have een indicated in some sections. [ot and dry weather in July caused ıarked deterioration in corn crop rospects in South Dakota, Nebraska, nd Kansas. Total supply of high protein and wheat millfeeds will be about the same this year as last.

Prices of corn and barley are below prices a year ago, oats and grain sorghums are higher. Corn prices strengthened after late July on reports of crop losses and Government announcement that 1938 corn under loan will continue to be withheld from market. A high record crop of soybeans has been indicated on an acreage 18 percent larger than last year's.

CATTLE: Prices Lower

Prices of better-grade slaughter steers declined on increased marketings in early August. Average at Chicago was 75 cents lower than in August last year. Marketings of grain-fed cattle—reflecting increased feeding—have been considerably larger since late spring this year than last.

A 16-percent increase was reported this August 1 over last in number of cattle on feed for market in Corn Belt. Feeders reported last April a larger than usual proportion of the cattle on feed at that time would be marketed after August 1.

Usual summer and early fall increase in marketings of grass steers and cows is under way. Prices of these cattle have declined. Average price of Common grade slaughter steers at Chicago in early August was about 65 cents below the average at that time last year. Good-grade slaughter cows averaged about 25 cents below last year's figure.

Prices of stocker and feeder cattle have declined in recent months, reflecting the drop in prices of fed cattle and seasonally larger supplies from the Southwest. Prices averaged about 10 cents higher at Kansas City in early August this year compared with last. Earlier this year the average was much higher.

HOGS: Marketings Up

Seasonal increase in hog marketings is under way, but may be no larger through December than in like period of 1938. Marketings already are on a much higher level than at this time last year. Heavy hogs sold lower than medium weights in early August, reflecting seasonal increase in marketings of packing sows and current low prices of lard and the fat cuts of pork.

Increase in hog production this year raises the total to pre-drought levels. Nevertheless, in the Western Corn Belt—most important producing region—fewer pigs will be raised than the average for 1929–33. This region has not yet fully recovered from the recent years of drought.

Increased production of pigs is likely in some sections of the Western Corn Belt next year, and possibly in the Eastern Corn Belt. But the increase probably will be smaller than it was this year. Ratio of hog prices to corn prices will be less favorable for hog producers this fall and winter than in the last 2 years.

The United States exported more pork in June than in any preceding month back to August 1934. Total exports in the first 9 months (October-June) of the current marketing year was 88.4 million pounds, compared with 66.5 million in the like period a year earlier. Exports of lard have been larger this marketing year. Storage stocks of both pork and lard are below the 1933–37 average.

LAMBS: Shipments Up

Shipments of lambs and sheep from the 13 western sheep States will be larger this fall than last, and a larger proportion of lambs will be in feeder condition. The feed situation over most of the western sheep area is unfavorable, condition of the ranges about the lowest on record. The lamb crop in the Western States, excluding Texas, was larger this year than last.

Lambs from flocks summered on the high ranges probably will be shipped earlier than usual this year, and it appears unlikely that so many ewe lambs will be kept for replacements and to build up numbers this year as last. BAE thinks that probably there will not be the usual price differential in favor of ewe lambs of desirable replacement type. Shipments are expected to include both a larger proportion of lambs in feeder condition and a larger than usual proportion of ewe lambs.

Lambs in Texas have not developed so well this year as last. Shipments have been smaller and marketing this fall will be less than the record shipments last fall. But it seems unlikely that the reduction will be enough to offset the increases from the other Western States. More lambs will be available the country over for feeding this year than last, but probably fewer will be fed in the Western States. In the Corn Belt, feeding may be increased.

WOOL: Production Up

Quantity of wool shorn or to be shorn in the United States this year has been estimated at 376 million pounds. This is about 1 percent more than in 1938, and about 6 percent above the 1928–37 average. Number of sheep shorn or to be shorn is 47.5 million head or about 2 percent larger than in 1938.

Wool sales in the domestic market were relatively large in July. Prices of many grades were the highest for the current season. Prices of most grades at the London sales in July were higher than at the close of the May series. Crossbred wools advanced most.

Stocks of apparel wool held by United States dealers and manufacturers were 42 million pounds smaller this July 1 than last, and smaller than July 1 stocks in any of the 5 years 1933–37. Total stocks (including wool on farms and ranches in producing States) this July 1 probably were below the 5-year average.

A fairly high level of mill consumption in the United States is in prospect during the next few months.

FRUITS: Prices Down

Seasonal increase in marketings reduced prices of most fruits sharply in August. Production reports indicated the 1939 output of most fruits will be considerably larger than the average of the 10 years 1928–37. A number of the major fruits—apples, apricots, cherries, peaches, fresh plums and prunes—will be in larger supply this year than last.

A commercial crop of 103 million bushels of apples has been indicated. This would be 25 percent more than the relatively small 1938 crop, and 6 percent larger than the 10-year average. Citrus crops from the bloom of 1939 developed under rather favorable conditions in California and Florida during July, but dry weather reduced prospects in Texas.

Persons interested in factors that affect apple prices should consider (1) supplies of apples (commercial crop); (2) supplies of competing fruits (orange production on an apple marketing year basis); (3) the purchasing power of consumers, as measured by the index of nonagricultural income.

FATS, OILS: Low Priced

Factors lowering prices of fats and oils this year include the increasing domestic supplies of lard and soybean oil, and increased production of oilseeds in other countries.

Combined supply of lard and soybean oil available for domestic consumption this year is expected to show an increase of about 500 million pounds over that in 1938 and of nearly 700 million over that in the years 1924–33. But estimates indicate reductions of about 300 million pounds in the supply of cottonseed oil this year compared with last, and of nearly 100 million pounds from the 1924–33 average.

The burdensome nature of supply of lard is attributed to the loss, since 1933, of the export outlet for about 300 million pounds a year.

Domestic soybean oil production this year is expected to total nearly 500 million pounds more than in 1934.

DAIRYING: Heavy Production

Prospects are for continued heavy production of milk this fall. Prices are low and pastures have been in poor condition, but feed grains and feeds are plentiful and relatively low priced. Consumption of fluid milk and cream increased during the summer. Consumption of manufactured dairy products was the largest on record. Large quantities were distributed by Government relief agencies.

Favorable to dairy production is the relationship between prices of butterfat and feed grains. Prices of manufactured dairy products have been stable at a low level, but prices of feed grains and feeds declined. Milk production on August 1 was the second highest on record for that date. Quantities of butter held by governmental agencies have been reduced; commercial holdings August 1 were about the same as the August 1 average for the last 5 years.

CHICKS, POULTS: Record

AMS reports production of chicks by commercial hatcheries January-July an all-time high record. The same for turkey poults. Increase in chicks over like period in 1938 was 21 percent; increase in turkey poults by 182 hatcheries was 52 percent.

Larger production of chicks this year is attributed to increased farmer purchases and continuation of the shift from home to commercial hatchings. Increase in turkey poults is attributed to producers' intentions reported last winter to expand turkey output this year, and to continued shift from home to commercial hatchings.

Percentage increases in production of chicks this year were fairly uniform the country over. Smallest increase—17 percent—was in New England and East North Central States. Largest increase—36 percent—was in Pacific Coast States. Most of the demand for July hatched chicks came from producers of poultry meat.

Commercial hatcheries in all areas produced more turkey poults this year. Increases ranged from 22 percent in New England and Middle Atlantic States to 87 percent in South Central States. The South Central region ranks third among all principal grand divisions in total numbers of turkeys raised.

EXPORTS, IMPORTS: Small

United States exports of agricultural products continued small in July due to the small shipments of cotton. Imports were little changed from the relatively low levels of the last year and a half.

Exports of pears were well above those in July last year, but total for the 7 months, January–July, was much smaller than the unusually high figures for the corresponding period a year earlier. Pork and lard exports continued to increase in July.

Imports of tobacco were relatively low during the last month of record, whereas purchases abroad of wool, hides and skins, cattle, canned beef, and barley malt were well above the low figures of a year earlier. Sugar imports were higher this July than last, but total for the 7 months, January–July, was down more than 15 percent as compared with the like period a year earlier.

FRANK GEORGE.

United States: Exports and Imports of Specified Agricultural Commodities, January-July, Average 1924–29, Annual 1938 and 1939, and July 1938 and 1939

Commodity	Unit	January-July			July	
		Average 1924–29	1938	1939	1938	1939
		Thousands	*Thousands*	*Thousands*	*Thousands*	*Thousands*
Exports:						
Pork[1]	Lb	279,860	56,057	78,905	9,305	16,884
Lard, including neutral	Lb	481,971	118,692	166,016	12,881	25,339
Wheat, including flour	Bu	73,317	74,845	73,870	12,764	7,414
Apples, fresh[2]	Bu	5,604	5,743	6,039	121	108
Pears, fresh	Lb	8,863	23,931	18,761	7,952	8,944
Tobacco, leaf	Lb	266,780	192,649	169,951	13,423	13,908
Cotton, excluding linters (500 lb.)	Bale	3,753	2,561	1,496	206	113
Imports:[3]						
Cattle	No	173	266	547	18	56
Beef, canned, including corned	Lb	[4] 22,740	46,666	49,078	7,719	8,082
Hides and skins, agricultural	Lb	[5] 251,657	77,476	186,452	14,777	22,599
Barley malt	Lb	[6] 605	61,358	65,421	7,756	10,136
Sugar, excluding beet (2,000 lb.)	Ton	2,895	1,820	1,529	236	354
Flaxseed	Bu	13,261	8,309	11,886	927	1,123
Tobacco, leaf	Lb	43,120	36,531	35,735	9,748	5,171
Wool, excluding free in bond	Lb	[6] 105,106	13,361	47,321	3,300	5,544

[1] Includes fresh, canned, and pickled pork; bacon, hams, shoulders, and sides.
[2] Includes barrels, baskets, and boxes in terms of bushels.
[3] General imports prior to 1938. Subsequently, imports for consumption.
[4] Includes a small amount of "meats canned, other than beef."
[5] Includes reptile and fish skins.
[6] Imports for consumption.

Measures of Domestic Demand

[1924-29=100]

Item	July				Percent change		
	1929	1933	1938	1939	1938-39	1933-39	1929-39
National income	108.3	61.8	86.7	90.5	+4	+46	−16
Nonagricultural income:							
Total	109.6	62.3	87.6	93.0	+6	+49	−15
Per capita	104.3	57.6	77.6	81.9	+6	+42	−21
Factory pay rolls:							
Total	109.1	52.9	70.9	84.2	+19	+59	−23
Per employed wage earner	101.5	68.7	85.9	92.4	+8	+34	−9
Industrial production:							
Total	116.1	93.6	77.7	95.5	+23	+2	−18
Factories processing farm products	107.0	114.6	95.3	104.0	+9	−9	−3
Other factory production	121.9	84.4	67.7	89.4	+32	+6	−27
Construction activity:							
Contracts awarded, total	102.5	17.4	48.8	55.4	+14	+218	−46
Contracts awarded, residential	83.3	11.6	43.9	54.6	+24	+371	−34
Employment in production of building materials	94.8	41.7	55.7	62.2	+12	+49	−34
Cost of living:							
Food	102.6	68.4	77.1	73.7	−4	+8	−28
All other items	97.5	80.7	85.7	86.0	([1])	+7	−12
Purchasing power of nonagricultural income per capita:							
For food	101.7	84.2	100.6	111.1	+10	+32	+9
For all other items	107.0	71.4	90.5	95.2	+5	+33	−11

[1] Less than ½ of 1 percent.

NOTE.—All indexes adjusted for seasonal variation except "Cost of living."

Prices Paid by Farmers—An Appraisal

FEW persons realize the Department of Agriculture prepares price estimates for more commodities *purchased* by farmers than for commodities *sold* by farmers. Estimates of prices received for crops, livestock, and livestock products, multiplied by estimates of production, provide data on gross farm income. But in computing net income, or real income, and income parity it is necessary to have information on per unit production expenses, and the cost of living, as well as the gross income figure. Since 1910, the Department has made estimates of prices paid by farmers for a number of articles used in farm operations and for farm family living. A start was made in this way to evaluate some of the expense items in the farm budget.

The earlier estimates of prices paid by farmers provide indications only of changes in the national average of prices paid for commodities purchased. Mailing lists were small, respondents were recruited almost entirely from merchants operating small general stores in rural communities. Constant improvement has been made since 1910 both in the number of commodities priced and in the accuracy of the basic indications. About 75 items were priced in 1910 when estimates were based on replies received from a few hundred storekeepers. In some cases, a few of the minor States did not report on all commodities.

IN 1939 prices for about 330 items are being estimated on a basis of replies received from more than 20,000 independent merchants in all States and more than 75 percent of all counties. Returns also are obtained from chain stores, mail-order houses, and cooperative buying associations where the timing of price changes, and the actual level of prices paid often differ from those in independent stores.

The series of estimates used in the construction of prices-paid indexes, however, continues to be based on quotations for cash transactions at local independent stores. Until facilities are provided for the computation of comparable averages of prices of articles purchased by farmers from all types of retail outlets back to prewar years, the index number series cannot be shifted to an over-all local market price average basis.

A LARGE number of types and specifications of individual articles are purchased by farmers. In evaluating these, it is necessary to include both articles bought for use in production, and articles used in living. The number of kinds and sizes of items for which price estimates can be conveniently made is necessarily small. No information is available regarding the proportionate sales to farmers of different kinds of men's suits, of different styles of bedroom furniture, or of different grades of gasoline. Furthermore, there are no standard grades for many items commonly recognized by merchants throughout the country.

There is considerable variation in the quality not only of new commodities purchased by farmers. There is extreme variation in the quality of articles bought at auction sales and second-hand stores which supply an appreciable percentage of farm purchases, particularly in furniture and other durable goods. In consequence broad specifications must be used to obtain price quotations the country over comparable in that they apply to the kind and quality commonly bought by farmers in respondents' stores. Averages of reported prices, using broad specifications, have proved to be the best approach to the problem of securing data that apply to the kind of goods actually bought by farmers. Narrowing of specifications restricts the coverage of the field and reduces

the representativeness of estimates based on such specifications.

The collection of prices of definite grades and standards of the various products purchased by farmers is handicapped by the absence of generally accepted grading systems for most of these products. The labelling of merchandise with meaningful descriptions indicating to the farmer and the merchant alike the real quality of articles of trade would simplify the estimation of prices paid by farmers for identical items throughout the country. This approach to the determination of average prices paid by farmers would require the pricing of various kinds of articles bought with each kind being given a weight proportional to its sales.

PRICE estimating and crop estimating in the Agricultural Marketing Service have many points of similarity. Both are sampling processes with the results subject to the errors inherent in estimates based on samples. In both cases also the sample is taken by means of a mailed questionnaire. Both samples are selective.

But there are, also, apparent differences between price and crop estimating. No census check points are available on prices. The information concerning production and sale of commodities to farmers is scanty. Information on purchases of articles for farm family living has been collected by the Bureau of Home Economics for selected areas and comprehensive mailed inquiries covering kinds and amounts of articles purchased by farmers have been circularized by the Agricultural Marketing Service for a few States. Facilities for the collection of current information on the volume of purchases of individual articles by farmers and the proportionate distribution of these purchases among States must be provided before a decided improvement in the geographic representativeness of national averages of prices paid can be effected.

Market factors also have a definite bearing on the averages of prices paid by farmers. The unit of sale affects the price paid for an aritcle. The relative importance of different terms of sale in different parts of the country may cause variations in price averages. Consumption goods are often bought on a straight charge-account basis or on the installment plan, as well as for cash. Production goods may be purchased at planting time and not paid for until the year's crops are harvested and marketed. Cooperative purchases of feeds, fertilizers, and other commodities at wholesale prices are of frequent occurrence. Little, if any, information is available regularly concerning volume discounts and terms of sale.

The precise measurement of changes in average prices paid by farmers requires current information concerning farmers' buying habits. This involves the collection of data on types of stores patronized by farmers, and the terms of sale, including volume discounts. Aside from a Nation-wide survey made by the Bureau of Agricultural Economics in 1935 regarding the proportion of farm trade going to independent stores, chain stores, and mail-order houses, few data are available on these subjects. Information on recent trends in the distribution of farm patronage is not at hand as facilities have not permitted the repetition of that survey during the past 4 years.

AT THE present time the technique of obtaining reasonably adequate price estimates for individual States has been determined satisfactorily. The problem of combining estimates from different strata to secure an average price, however, cannot be solved in its entirety until sales as well as price estimates can be compiled currently. Some improvement in present price estimates is now being made as increases in the number of returns improve the precision of the basic indications. Such improvement is dependent upon the continuance of present facilities along lines now in use. Greater improvement can be made by extension of the price work to include all elements in the price picture.

A. R. SABIN,
Agricultural Marketing Service.

The Anatomy of Domestic Demand

THE DOMESTIC demand for farm products is a great complexity, in spite of the fact that we often generalize it and portray it simply by a national index of industrial activity or by an aggregate sum of money incomes of groups of consumers or of the nation as a whole. The demand for farm products may be for industrial uses, for direct consumption by final consumers, for further productive uses by farmers, or for export. The relative importance of each of these sources varies of course with each commodity. In the domestic markets we are chiefly concerned with the fluctuations in demand that arise from the changing course of industrial activity and the money income of consumers.

Both the general measures of aggregate consumer purchasing power and of industrial activity and employment consist of many components of great diversity as well as of similarity. It is some of these broad differences and similarities in components and their relation to farm products and farmers' incomes that we undertake to examine under the general heading of The Anatomy of Domestic Demand. In this article, the first of a series, we deal with those variations in industrial activity that originate in or create the expenditures for durable goods by both producers and consumers, and note both their annual variations during the past 20 years and their bearing on the problem of full recovery in agriculture and other industries.

> ***We hear much about the "demand" for farm products and its course during recovery and recession—Whether it is good or bad, and how it affects farm prices and the farmer's income. Many factors are included in that expression "Demand for farm products"—it is complicated and hard to define for it springs from various sources and does not affect all farm products alike. In this article, the first of a series by L. H. Bean, "demand" is discussed in terms of the national income or the money income of consumers and the underlying variations in job-creating expenditures by producers and consumers.***

A VERY LARGE part of our economic well-being has in the past been associated with expenditures that are in the nature of investments by producers for plant and equipment, by Government for public works, and by consumers for durable goods, such as housing, household goods, and automobiles. Private expenditures originate from past or current earnings of corporations and individuals and from borrowed capital. On the average, a change of a billion dollars in these expenditures for new durable goods has been associated with a change of more than 2 billion dollars in the national income as measured by the combined money income of all individuals.

This basic relationship can be readily established by comparing the available measures of the national income and of expenditures for new durable goods for the 20-year period, 1919–38, and noting the major changes in each. (See chart 1 and table 1.) In 1921, expenditures for new durable goods [1] amounted to 14 billion dollars and by 1926 had risen to 25 billion dollars. This increase of 11 billion dollars in expenditures was accompanied by a rise in the national income as measured by the value of goods and services produced from about 52 billion dollars to 76, an increase of 24 billions or about 2.2 dollars of income produced for each dollar of durable goods expenditures.

Between 1926 and 1929 the national income rose still more to nearly 83

[1] According to a series compiled by George Terborgh, Federal Reserve Board Bulletin, Sept. 1939.

billion dollars without a comparable increase in the total of durable goods expenditures. This was probably due to the use of savings for speculative purposes instead of for durable goods.

Between 1929 and 1932 the national income produced shrank about 40 billion dollars; expenditures for durable goods nearly 17 billion—or in the ratio of 2.4 to 1. During the recovery period between 1933 and 1937 the national income produced rose 29 billion dollars; expenditures 12 billion dollars, or in the ratio of 2.4 to 1. (See Table 1.)

THE AGGREGATE of durable goods expenditures may also be compared with the national income representing the total of income paid to or received by individuals, for some of the expenditures (such as that for housing and automobiles) depend on the income savings and credit of consumers; and other expenditures (such as that for plant and machinery) depend on both past and current producer income from mining, manufacturing, railroads, other utilities, and farming. The interdependence between either of the measures of national income shown in chart 1 and the aggregate of expenditures for or investments in new durable goods is very marked. Each affects the other; industrial activity, which is the real basis of the national income, is an important factor in determining the amount of expenditures, and the latter in turn contributes predominantly to the level of industrial activity and the national income.

Subdivision of these aggregates of job-creating expenditures reveals instructive differences in the behavior of the various segments of our economic structure. In chart II six such subgroups of expenditures for durable goods are shown. Three of them are construction groups and three are for machinery and equipment. The three construction groups of expenditures differ most markedly from each other.

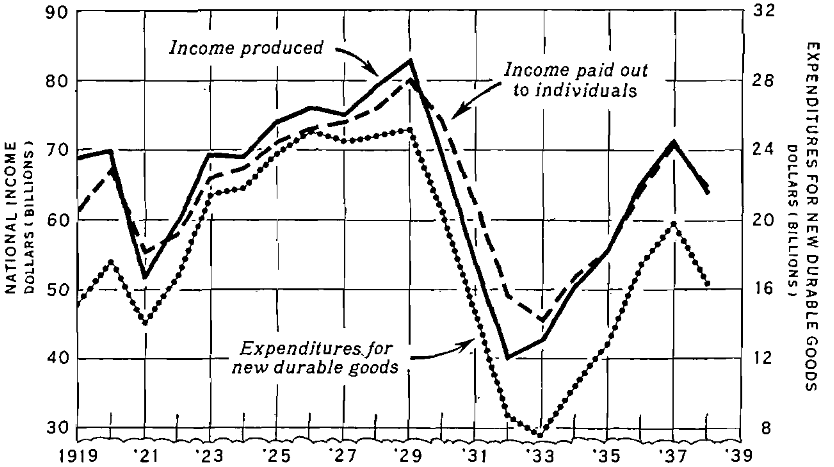
TABLE 1.—Expenditures for New Durable Goods and National Income

[Billion dollars]

	Expenditures [1]	National income	
		Produced	Paid out [2]
1919	15.2	68.7	61.3
1921	14.0	51.8	55.3
1926	25.2	76.4	73.3
1929	25.4	82.7	80.2
1932	8.7	40.1	49.3
1933	7.7	42.5	45.6
1937	19.9	71.9	70.7
1938	16.4	64.0	65.0

[1] Estimates compiled by George Terborgh, Federal Reserve Board, dated May 1919.
[2] Revised estimates of the U. S. Department of Commerce.

THE NATIONAL INCOME AND EXPENDITURES FOR NEW DURABLE GOODS



One of them, residential housing, reveals a smooth and fairly regular cycle from 1920 to 1933 and the beginning of another, though a much more moderate one, since 1933. Public construction was expanded gradually to 1930, and after a contraction in 1931 and 1932 was restored in line with the trend of the 1920's. The third construction item, namely plant construction, fluctuated between 1919 and 1932 more nearly in line with the general volume of industrial activity and with the national income. As in the case of housing, expenditures for plant construction also failed to show marked expansion after 1933.

IN THE three groups of expenditures for machinery and equipment, each appears to be related very closely either to the volume of industrial activity or to the national income or to a combination of both. Purchases of equipment by producers (manufacturers, farmers, utilities) tend to rise noticeably in years of prosperity or in years when the short-time business cycles or cycles in industrial activity reach their high points, as in 1919, 1923, 1926, 1929, and 1937. Expenditures by consumers for durable household goods and for automobiles are on the other hand related more closely to the course of the national income.

It is clear from this illustration that expenditures for construction are affected differently than expenditures for equipment, the former being in the nature of long-time investment and closely related to credit conditions, while the latter are more nearly related to demands arising from current industrial activity, and to the ability to pay out of past or current income. A closer analysis of these and more detailed groups of expenditures would also reveal that industrial activity and earnings in a given year continue to be reflected in expenditures in the following year to some extent. This may be due in large measure to the time involved in completing a program of expenditures.

From this illustration several important conclusions may be drawn.

(1) The cyclical characteristic of residential construction expenditures is unique and quite different from the short-time fluctuations in other lines of activity not directly associated with construction.

(2) Expenditures by producers for plant construction generally show fluctuations similar to those of industrial activity and of the national income rather than to those of housing. This is also true of producers' expenditures for machinery and of consumers' expenditures for automobiles and for durable household goods.

(3) Since 1932, however, expenditures by producers for plant construction and expenditures by consumers for housing have not kept pace with other durable goods outlays and with the national income.

THERE ARE various explanations that may be given for the failure of industrial activity and the national income to continue the advance that was in progress between the spring of 1933 and the spring of 1937, but it is significant to note that the shortage of investment in or expenditures for durable goods in 1937 by about 5 billion dollars (and therefore the shortage in the national income of about 12 billion dollars), compared with the figures for 1929, can be accounted for almost entirely by a 2 billion dollar shortage in housing construction and by a 2.5 billion dollar shortage in plant construction. There were also some shortages in 1937 in the other groups of durable goods expenditures but (as can be seen from chart II) these were offset by the larger volume of expenditures for public construction.

THE NATIONAL money income received by individuals has averaged so far this year an annual rate of about 65 billion dollars, or nearly 10 percent lower than in 1937. We have seen (in previous articles) [2] that a national income of 85 to 90 billion dollars at present prices is required to restore full employment and consumer purchasing power in order to provide a more adequate domestic demand for the products of our farms. We may now raise the questions as to what volume of job-creating expenditures for new durable goods is needed to support an 85 to 90 billion dollar national income, and what are the apparent shortages in each of the broad groups of activity.

A given aggregate of durable goods expenditures has in recent years been associated with a somewhat larger national income than in the 1920's. This is partly indicated by the fact that during the 1933–37 recovery the ratio of income produced to expenditures was 2.4 compared with 2.2 in the earlier period. It is also readily evident from the fact, for example, that in 1938 we had expenditures of 16.4 billion dollars and a national income of 64 billion dollars; while in 1922 with a similar expenditure of 16.8 billion the national income was 60 billion. Making allowance for this fact, we conclude that a national income of 85 to 90 billion dollars would call for an aggregate of new durable goods expenditures of about 27 billion dollars compared with 16 in 1938, 20 in 1937, and 25 in 1929.

[2] See "Deficit in National Income" in Agricultural Situation, October 1938. "Industrial Unemployment and the Farmer" in Agricultural Situation, January 1939.
"Eighty Billion Dollars—When?" in Agricultural Situation, May 1939.

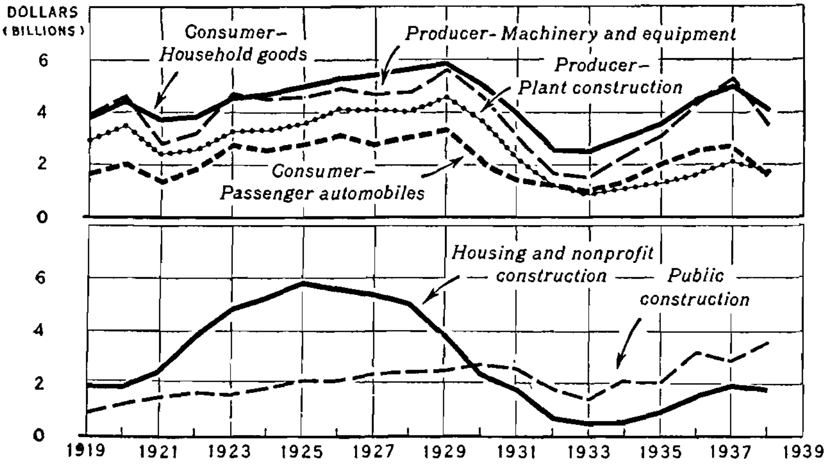
TABLE 2.—Expenditures for New Durable Goods, 1928, 1938, and Estimated Expenditures for Full Recovery

[Billion dollars]

	1928	1938	Expenditures for full employment [1]
Public construction	2.4	3.5	3.0
Producers' goods:			
Plant construction	4.0	1.8	4.0
Equipment	4.7	3.6	5.0
Consumers' goods:			
Construction, housing	4.4	1.8	} 6.0
Construction, nonprofit	.7	.2	
Automobiles	2.9	1.6	3.0
Household goods	5.7	4.1	6.0
Total	24.8	16.4	27.0

[1] Based approximately on the relative contribution of each group to the total expenditures of 1928.

EXPENDITURES FOR NEW DURABLE GOODS



TO INDICATE where the shortages exist and their relative magnitude, we may distribute this 27 billion dollar figure according to the composition approximately typical of the 1920's, say in 1928, as shown in table 2.

Contrasted with the volume of expenditures for 1938, full employment and a more adequate domestic demand would require an increase of about 11 billion dollars in durable goods expenditures distributed about as follows: at least 2 billion dollars more than in 1938 for plant construction, about 1.5 billion dollars more for plant equipment, and about 4 billion dollars more for construction, chiefly housing. In addition to these, there is indicated an increased expenditure for durable household goods of about 2 billion, and for passenger automobiles an increase of about 1.5 billion.

Increased investment or expenditures in these or equivalent productive channels is one of the main routes to full recovery, for it would mean a more nearly full use of our idle resources in material, capital, and labor.

BUT HOW are these increases to be obtained? Manufacturers would undoubtedly claim that if they had a larger demand for their products they would expand their plants or spend more for additional equipment. Farmers, too, would undoubtedly argue that they would spend more for machinery and equipment for both farm and home if their incomes were greater, and if they could bank on a restored foreign demand and a growing domestic consumption. Public utilities would undoubtedly point out that they have expanded their facilities in line with the past growth in demand; that their present facilities are adequate for present demands and that if there were greater certainty of increased demand they would increase their capital outlays. In the housing field, too, we would find that more activity would be in evidence if more people had incomes adequate and secure enough to warrant home building, and if the population curve for the country as a whole would again increase annually at a rate of 2 percent a year instead of the present rate of less than 1 percent. There are many other reasons given, including relatively high construction costs and lack of "confidence."

In a situation of this sort, where available capital and labor are not being utilized as they should be, it is clear that farmers cannot look forward to a speedy restoration of domestic demand conditions characterized by more nearly full employment unless some positive further stimulus is provided to bring about additional expansion in housing and investment in plant and equipment. This would of course automatically result in increased production of industrial goods for consumption by the city and farm population and therefore in an increased national income. In line with these needs, proposals are now being considered for ways and means of simultaneously increasing consumer purchasing and stimulating the flow of private and government capital into these job-creating activities in such ways as will not increase the Federal debt; in other words, in ways of utilizing savings and credit similar to those which this country has always used in attaining progressively higher levels of employment and living standards.

L. H. BEAN.

1940 AAA Farm Program

TO BORROW a phrase used in the automobile industry, only a few "refinements" will serve to distinguish the 1940 model AAA program from its 1939 counterpart when it emerges from the drafting rooms.

Outlines for the 1940 program were laid in a conference July 10–12 in

Washington of some 100 State farmer-committeemen and others cooperating in the administration of the farm program in the field. The national conference gave consideration to recommendations of regional conferences previously held which reflected recommendations from State, county, and community groups of farmers.

The "refinements" provide increased emphasis on soil conservation through a number of new soil-building practices and on greater benefits from participation by small farm operators in 1940. Following the trend started by the Agricultural Adjustment Administration at its beginning in 1933, farmer-committeemen will take increased responsibility for administration of the 1940 program.

THAT cooperating farmers want a program as free from change as possible was heard throughout the conference. The widespread acceptance of the 1939 program, shown in participation representing about 85 percent of all the farm families in the United States, was taken as an indication that the AAA Act quite definitely represents a maturing national farm policy.

Prior to the national AAA conference, representatives of vegetable growers met in Washington to draft a program of cooperation with other farmers in the soil conservation program. Further stabilization of acreage and improvement of marketing continue as goals of the vegetable growers under the farm program, and the 1940 program will seek to meet more fully the specialized needs of this section of agriculture.

CHANGES recommended by the AAA conference indicate that American farmers are engaging in an unprecedented stock-taking of the physical needs of their farm lands. They recognize more fully today than ever before the need of rebuilding lands worn by use or by erosion. They recognize, too, the need for farm families to produce enough of the things required for improved standards of living. As a step toward increased production of food for the farm family, southern representatives urged a $2 payment for home gardens, backed by a deduction of $2 per family from the farm payment for failure to plant a garden.

Farm forests will be encouraged through a recommended allowance of $30 per farm for planting forest trees. Longer rotation in dry-land farming will result from recommended further emphasis on maintaining vegetative cover on cropland. Protection of wildlife is the aim of other soil-building practices recommended by the conference.

In the Great Plains area the return of restoration land to a permanent vegetative cover would be expedited by special practices recommended for the 1940 program. The conference noted the passing of the need for a special wind-erosion area program, since practices developed in the regular program fill the area's needs. Changes in the range program will be based upon recommendations of the national range conference, held July 24 in Hot Springs, S. Dak.

CONTINUATION of the 1939 grants-of-aid program by which farmers in some areas receive lime, phosphate, and seeds in place of payments for the carrying out of soil-building practices was recommended for 1940 with an additional recommendation that materials go through local distribution channels wherever practicable.

These recommendations indicate that the 1940 program will be only slightly different from the present farm program. Provisions of the 1940 program, together with allotments and rates of payment, will be released early enough so that participating farmers can plan their operations well ahead of the planting season. The 1940 wheat acreage allotment—of 62 million acres—has already been released.

Through the action of their representatives in the national AAA conference, farmers will have in 1940, more than ever before, the necessary

ans to meet their soil and income blems. The commodity loan, ex-rt, and surplus-removal phases of program will continue to be ailable to meet the problems of adling crops after they are pro-ced; and the conservation phases of program will keep on serving as a guide to farmers in the acreage adjustments needed before the crops are produced. Taken together, these parts of the farm program mean the assurance of an abundant production and of an Ever-Normal Granary in which to store it.

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Agricultural Adjustment Administration.

Direct Marketing of Stockers and Feeders

ARRANGEMENTS were made last month for the publication by the United States Department of Agriculture of monthly statements of the number of stocker and feeder cattle and sheep received for feeding or grazing in important feeding States in the Corn Belt. The reports will show the number of animals received direct from producing areas as well as the number received from public stockyards. Reports will be issued about the 10th of each month.

The direct marketing of stocker and feeder cattle and sheep from producing areas to the feedlots has increased greatly in recent years. No data have been available of precise measures of the change, but the shift has been indicated by the decrease in the proportion of stockers and feeders from public stockyards to inspected slaughter. The new reports will seek to make more complete the information on stocker and feeder shipments.

THE accompanying table shows that shipments of stocker and feeder cattle from public stockyards were equivalent to one-half of the number of animals slaughtered under Federal inspection during the period 1920–24. During the 4-year period 1935–38, shipments from public stockyards were equivalent to only one-third of the number slaughtered.[1] Shipments of stocker and feeder sheep declined from 24 percent in the period 1920–24 to 17 percent for the period 1935–38.

These changes in relationships could have been caused by farmers and feeders in the Corn Belt States producing more of their feeding animals and buying fewer animals produced on the range, or by range producers finishing

[1] Since most of the stocker and feeder calves are slaughtered after they have passed the age class for calves, calf slaughter is not included with the cattle slaughter in making these comparisons. Also, the data on slaughter are lagged 6 months for cattle and 4 months for sheep.

Stocker and Feeder Cattle and Sheep Shipped From Public Stockyards in Relation to Federally Inspected Slaughter by 5-Year Periods, 1920–38

Year	Cattle			Sheep and lambs		
	Shipments from 63 public stockyards, yearly average	Slaughter under Federal inspection, lagged 6 months, yearly average	Shipments as percentage of slaughter	Shipments from 63 public stockyards, yearly average	Slaughter under Federal inspection, lagged 4 months, yearly average	Shipments as percentage of slaughter
	Thousands	*Thousands*	*Percent*	*Thousands*	*Thousands*	*Percent*
1920–24	4,400	8,809	49.9	4,319	11,798	36.6
1925–29	3,752	9,151	41.0	4,895	13,334	36.7
1930–34	3,060	9,276	33.0	3,898	17,251	22.6
1935–38 [1]	3,421	10,179	33.6	3,110	17,592	17.7

[1] Average for 4 years.

for market more of the animals they produced. However, indications are that the reduction in the shipments from public stockyards in relation to the number slaughtered is primarily accounted for by the shift to marketing direct. Direct marketing of feeder cattle commenced to increase about 1924, reaching its maximum proportion since 1933. Direct marketing of sheep has increased sharply since 1930.

A LARGER percentage of the stocker and feeder sheep are bought direct than stocker and feeder cattle. Summaries of the nearly 2½ million head of sheep shipped into the six States, Indiana, Michigan, Wisconsin, Minnesota, Iowa, and Nebraska, in 1938 showed that 57 percent were bought direct. That is, less than one-half of the total were cleared through public stockyards. Of the nearly 1½ million feeder cattle brought into the same six States in 1938, approximately 32 percent were purchased direct. (This information was obtained from records of shipments into each of these States from the files in the offices of State veterinarians. All of these States have laws requiring that livestock brought in for purposes other than immediate slaughter be accompanied by health certificates or come in on permits issued by the State veterinarian. Copies of health certificates and permits are on file in the offices of State veterinarians.)

The State veterinarian's records in some of the States appear to be more complete for sheep shipped in than for cattle. Sheep are received by fewer individuals than are cattle, they are bought in larger lots, and most of them come from considerable distance and are, therefore, transported by rail. This makes it less difficult to obtain records of such shipments. Records of shipments into some of the States appear to be substantially complete, whereas into others they are somewhat incomplete.

WHERE some records are missing they are likely to be for livestock bought direct rather than at public stockyards. Livestock bought at public stockyards are inspected and certified by representatives of the Bureau of Animal Industry and copies of the certificates are furnished to the State veterinarian in the State to which the shipments go. The extent to which reports of direct shipments are not received will cause the number reported as purchased direct to be understated.

Statistics on direct shipments will be based upon reports from State veterinarians to the agricultural statistician in the respective States. In some States the summarization will be made by the agricultural statistician. Reports will be forwarded to the Washington office of the Division of Agricultural Statistics where they will be assembled and released. Data for the corresponding month a year earlier, and other comparisons will be shown in the releases. It is likely that the service will be extended to other important States in the feeding area. Assistance in tabulating data for recent years in Minnesota, Iowa, and Nebraska is being furnished by the personnel of the Works Projects Administration in those States.

KNUTE BJORKA.

Mechanizing The Corn Harvest

HUNDREDS of thousands of hired hands will soon be in the cornfields harvesting the new crop in a dozen Corn Belt States. Fewer hands are required now as compared with a decade or so ago. Each year the number is reduced by the increasing thousands of mechanical pickers that husk and deliver the corn into field boxes or wagons in practically continuous operation.

Twenty years ago there were probably fewer than 10,000 mechanical corn pickers on farms. Performance

was generally unsatisfactory when fields were wet or frozen. Often there was no appreciable saving in labor as contrasted with hand methods. Even today there are natural conditions under which pickers cannot be used effectively.

Sales to farmers increased substantially in the late 1920's as pickers were improved by the adoption of the power take-off and the advent of the two-row type. Other innovations included the wagon hitch and the mounted picker. The increasing production of hybrid corns in recent years also has favored larger use of mechanical pickers.

Sales in the last 2 years made a new high record as farm incomes increased. In 1937 and 1938 approximately 28,000 pickers were sold. It is probable that, as contrasted with fewer than 10,000 mechanical pickers on farms in 1920, not less than 70,000 will be on farms this season.

A recent study by BAE based on estimates of crop correspondents shows that in 1938 the use of the mechanical picker was most pronounced in the Corn Belt, especially in Illinois, Iowa, and Minnesota. In these States 35 percent or more of the acreage of corn for grain was harvested with mechanical pickers.

In Indiana and South Dakota about 20 percent of the corn acreage was so harvested. But only 9 of the 40 States included in the study reported 5 percent or more of the harvested acreage of corn gathered with pickers. In 12 States less than 1 percent of the corn acreage was so harvested, and in 10 States no use of pickers was reported. The accompanying table gives the results.

For the whole country pickers accounted for around 13 percent of the acreage of corn harvested for grain in 1938. The per acre yield of corn in States where pickers were used extensively was, however, much above the United States average yield and consequently around 20 percent of the total production of corn for grain in 1938 was harvested with pickers.

THE factor that has contributed most to the increased use of the picker is the saving in labor. This saving as compared with the hand method is most pronounced when corn yields are high. With the one-row picker, harvest labor is reduced one-third or more as compared with the hand method. With the two-row picker less than half as much labor as for hand husking is usually required. The saving in labor makes it possible for farmers to finish harvesting corn at an earlier date.

Probably of equal importance is the fact that the corn picker eliminates much of the drudgery of harvesting corn. Where corn harvesting is mechanized, labor can be used more effectively. On many farms the regu-

Acreage of Corn for Grain Harvested With Pickers, and Corn Harvest Rates, by Leading States in Picker Use, and by Geographic Divisions, 1938

State and division	Corn acreage harvested with a mechanical corn picker	Custom rate per acre for harvesting with a mechanical corn picker	Labor rate per bushel for husking from standing stalk
	Percent	*Dollars*	*Cents*
Illinois	43	2.15	4.2
Minnesota	35	1.95	4.9
Iowa	35	2.05	4.2
Indiana	22	2.25	4.5
South Dakota	18	1.65	5.9
Ohio	12	2.50	4.8
Michigan	5	2.75	4.4
Wisconsin	5	2.40	4.7
North Dakota	5	1.95	6.7
New England [1]	----------	----------	----------
Middle Atlantic	3	3.70	4.8
East North Central	28	2.20	4.4
West North Central	19	2.00	4.4
South Atlantic [1]	(2)	2.80	4.2
East South Central	(2)	2.10	3.5
West South Central	(2)	----------	4.7
Mountain	3	2.35	5.9
Pacific [1]	(2)	----------	6.7
United States [1]	13	2.10	4.3

[1] Average for States reporting. No information obtained in the New England States, California, or Florida.
[2] Less than ½ of 1 percent.

lar farm labor now harvests the corn crop, whereas in earlier years an appreciable part of the crop was gathered by extra hired labor.

CORN pickers vary widely as to effectiveness in different years and at different times in the harvest season. The picker method is usually at its greatest advantage in the early part of the harvest season before storm damage becomes excessive. But studies show that, even with favorable conditions, the corn picker leaves more corn in the field than do hand huskers. In years of heavy storm damage the quantity of corn left in the field is sometimes so large it becomes necessary to discontinue harvesting with the picker.

The corn picker is relatively at its greatest advantage where fields are large, the production is greater than can be harvested with the usual farm labor, and where the corn left in the field can be utilized by livestock without the necessity of expending extra labor for gathering it.

THE cost per acre for operating a picker is influenced considerably by the number of acres harvested each year, by wage rates, and by corn yields. The one-row picker, to be operated at a fairly reasonable figure, should harvest 80 to 100 acres annually. From 160 to 200 acres are needed for the two-row picker.

Custom rates for picker use (these rates probably fairly closely reflect the relative costs of its operation in different States) ranged in 1938 from less than $2 to more than $4 per acre, but usually averaged from $2 to $2.25 in States where the picker was used most extensively.

The rate paid hired labor for husking corn also varied significantly, largely reflecting differences in wage rates and corn yields. The picking rate, however, averaged around 4.5 cents per bushel in the principal corn States in 1938. In most States the 1938 yield of corn per acre together with the rate paid per bushel for husking by hand, gives a per-acre figure fairly close to the custom picker rate.

There are, however, other aspects to be considered. When the farmer hires a picker he usually hauls and cribs the corn. When he hires the work done by hand husking he furnishes teams, wagons, and often boards the harvest hand but the harvest labor hauls and cribs the corn.

THE large corn picker sales of recent years indicate that the corn picker will be of increased importance as a factor in corn harvest in the years ahead. Its use, however, will likely be limited mostly to areas of the Corn Belt where the bulk of the crop is harvested from the standing stalk.

In some areas of the western Corn Belt, corn yields have been low in most recent years, reflecting drought damage. Purchasing power of farmers in such areas has also been low. With more nearly normal weather conditions, picker use seems likely to increase in these areas over the low level of 1938. In the more humid areas of the Corn Belt there are doubtless many farms where the corn acreage is sufficiently large or can be increased by custom work to permit of the economical use of corn pickers.

It appears unlikely that the corn picker will be of any appreciable importance as a factor in corn harvest in most Eastern and Southern States. The fields are small and the farm labor supply usually is ample for harvesting by hand methods. Moreover, relatively little corn is harvested from the standing stalk in the Eastern States. In the South many growers prefer to harvest by snapping rather than by husking.

A. P. BRODELL.

U S GOVERNMENT PRINTING OFFICE: 1939